

# **Facilitating Land Record Modernization In Nebraska**

**A Working Paper**  
Prepared by the  
**Property Parcel Task Force**  
for the  
**Nebraska GIS Steering Committee**  
**July 1996**



## *Working Paper Executive Summary*

### **FACILITATING LAND RECORD MODERNIZATION**

Property parcel maps and associated land records are used and needed for a wide range of applications in local, state, and federal government. Until very recent times, most of this information has been maintained on paper maps and records. Technological advances, the call for increased government efficiency, and the needs of specific applications involving this information are all contributing to an increasing trend toward computerization (modernization) of land record management.

This Working Paper outlines the background of the current situation and some of the factors contributing to the trend toward land record modernization. The Working Paper identifies some of the opportunities that come with

modernization and some of the problems and needs related to increasing the likelihood that governmental agencies will receive the maximum return from their investments in land record modernization. The Working Paper highlights the apparent need for additional guidelines or standards for digital property parcel mapping and for mechanisms to facilitate a local/state partnership in the development of these digital property parcel datasets and maps.

The Working Paper also identifies some of the key players, provides a summary of some of the actions taken so far, and proposes a cooperative process for moving forward to address some of the needs identified.

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# FACILITATING LAND RECORD MODERNIZATION

## A Working Paper

### BACKGROUND

The ownership of land plays many important roles in our culture and economy. With land ownership comes not only the opportunity to manage that resource for economic gain, but also a bundle of other rights and responsibilities. Many functions of local government are directly or indirectly associated with local government's role as the primary repository and steward of legal land ownership records and the associated rights and responsibilities.

Land ownership records have traditionally consisted of paper maps and other paper documents or tabular information associated with particular property parcels. Maps of property parcels are a key element in the established systems of recording and

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*"More than 80 percent of all information used by local governments is geographically referenced."*  
— Urban & Regional Information Systems Assoc.

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maintaining records of legal ownership. One working definition of a property parcel map is a graphical representation of the legal boundaries of a contiguous geographic area in one ownership and one general use and containing not more than one section (640 acres). Property parcel maps also frequently include associated attribute information such as the quality (value) and quantity (acres) of a property parcel, the location of property parcel relative to the broader surrounding area, the ownership of the property parcel, a common identifier number and/or description, and the boundaries and ownership of adjoining property parcels. Property parcel maps are also commonly referred to as plats, cadastral maps, or tax maps.

### PROBLEMS WITH EXISTING LAND RECORD SYSTEMS

Until very recent history, land ownership records and maps have been maintained primarily on paper. Historically, these paper maps and records have provided a viable means for recording and maintaining land ownership records. However, several shortcomings of these paper-based systems have contributed to the development and increasing adoption of computerized land record management systems.

**Greater Government Efficiency Necessitates Automation.** Among the shortcomings of paper maps and records is the

difficulty of automating any of the governmental functions associated with land ownership records such as property tax assessment and equalization. In an effort to provide more efficient and improved overall service, the trend toward computerization of land record management functions has steadily grown. Initially, computerization efforts focused on automating the processing of tabular information associated with land ownership. The objectives of these initial efforts were to increase the efficiency of associated functions such as processing tax assessment, tax statement billings, etc.

However, in the pursuit of efficiency and improved service, there is now a growing trend to also computerize the management of the documents and mapping associated with land records.

**Recording Changes — Keeping Records and Maps Current.** In an era in which land ownership changes frequently, paper land records are difficult and expensive to update and keep current. This is particularly true of paper maps. In some cases, properly recording a change could require a redrawing by hand of an entire paper map. The difficulty and expense associated with maintaining these paper property parcel maps frequently results in a growing backlog of unmade mapping changes, and consequently, out-of-date property maps. In other cases, where one local government office is able to keep their property parcel maps updated, it is difficult for them to communicate these changes on an ongoing basis to other government agencies who also use or maintain similar property parcel maps and records.

**Sharing Information Among Multiple Users.** In an increasingly complex and interdependent society, people are demanding more and more services from government, particularly local government. The efficient provision of these services requires that agencies have the ability to efficiently share accurate information with each other. At the local government level, one commonly needed and used type of information is property parcels maps and the associated information about who lives where.

In addition to their role in maintaining land ownership records, property parcel maps and the associated attribute information are also used for a wide variety of other governmental

and nongovernmental applications. These maps and associated data have long been a key element in the established systems of assessing property taxes associated with the ownership of the land. Property parcel maps are also used in a growing variety of other governmental applications such as public safety and emergency response, zoning, federal farm programs, natural resources management, and infrastructure planning and maintenance. The nongovernmental private real estate and banking sectors, as well as the utilities and insurance sectors, are also significant users of these types of maps.

Consequently, the need for this type of information includes County Assessors, County Register of Deeds, local schools, E-911 emergency response agencies, County Weed Control, public utilities, zoning authorities, etc. At the regional, state, and federal level, agencies such as Natural Resources Districts, the Game and Parks Commission, and the USDA Natural Resources Conservation Service are just a few of the agencies that use this type of information. Sharing ever-changing paper maps and records on an ongoing basis with this many agencies is difficult.

**Duplication of Effort.** The difficulty of sharing paper maps and records frequently results in an expensive duplication of effort by multiple agencies to maintain similar maps or records. It is not uncommon in a given local area for many of the agencies listed above to maintain separate, but similar, systems of property parcel mapping. County Assessors are required by state statute (Section 77-1329) to maintain cadastral maps. Local efforts to develop E-911 emergency response systems need updated information on where people

live and mapping systems are frequently developed for that purpose. Local school systems need maps for routing school buses and siting schools and commonly develop their own maps. The local offices of the USDA Natural Resources Conservation Service and the Farm Services Agency frequently maintain separate farm record and mapping systems as part of their conservation and management responsibilities. These and other duplications of effort to maintain separate, but similar, property parcel record and mapping systems are all supported by tax dollars.

## LAND RECORD MODERNIZATION

**New Mapping Technologies.** The capabilities of new computerized land record technologies, in contrast to the shortcomings of paper-based land record and mapping systems, are stimulating many governmental units to change how they manage land records. Governments are moving from an environment in which land record maps are maintained on paper to one of computerized digital mapping and analysis.

These new technologies include Computer Aided Drafting (CAD) programs which enables the conversion of hand-drawn paper maps to a digital environment and significantly reduces the costs and time required for the ongoing updating of maps and the production of specialized maps. Geographic Information Systems (GIS) are an even more sophisticated technology, that not only enables the conversion to a digital mapping environment, but also provides the capabilities for a wide range of sophisticated computer analysis of those maps and their associated attribute databases.

**Conflicting Information.** Another problem directly related to multiple agencies maintaining separate, but similar, land record information systems is that these separate systems inevitably end up with conflicting information. This is directly related to the inherent difficulties involved in sharing ever-changing information based on paper maps and records between multiple agencies and users. Conflicting land record information stored at different agencies can result in conflicting public policy actions among agencies and usually results in considerable problems for the citizens caught in the middle.

### Benefits of Land Record

**Modernization.** These new computerized land record management technologies provide the capabilities for enhanced product quality, decreased response time, and reduced overall costs to maintain and update maps. GIS also provides enhanced analytical capabilities. While certainly not a panacea, these new technologies offer the capabilities to help address many of the problems and shortcomings with paper maps and records that were identified in the section above.

GIS technology is capable of closely integrating digital mapping and many of the related existing digital land record databases that agencies have already automated. This allows for building upon previous efforts and investments to continue to seek greater efficiencies through land record automation. Both CAD and GIS technologies make it easier, cheaper, and quicker to update existing maps to reflect changes in land ownership or use.

The new computerized mapping and geospatial analytical technologies offer powerful tools to enable multiple agencies to work together. If digital property parcel maps are properly developed and maintained, these technologies would allow multiple agencies to share the same maps and related information with relative ease. This could significantly reduce the duplication of effort costs involved when multiple agencies develop and maintain similar maps or databases.

This information sharing would also increase the probability that these agencies would be basing their policy decisions on the same information. Conversely, if these property parcel maps are not developed with the needs of a range of users in mind, the potential of multiple agencies to utilize the technology to share a common property parcel databases/maps may be lost.

**Areas of Concerns.** In most cases, a migration to a digital mapping environment involves a substantial up-front investment in the initial development of quality digital maps. This is particularly true in the case of property parcel maps. However, this initial up-front investment offers the potential of future cost savings through reduced costs for updating maps and the unnecessary duplication of effort to maintain these types of maps in multiple agencies.

As the level of public investments in the modernization of land record management increases, efforts that will increase the maximum overall return on those public investments become more important. In this context, it is important to consider that while

these new technologies offer the potential of significantly increasing the sharing of land record information between agencies, they will not by themselves overcome the institutional patterns and barriers to making that increased information sharing happen.

To overcome these institutional barriers, it may be necessary to create new coordinating bodies focused on information sharing. Digital databases and maps should be

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developed with needs of the broadest range of uses and users in mind. New institutional arrangements may be needed to provide mechanisms for sharing the costs of the initial investments in and ongoing maintenance of digital land records and maps.

**Legislative Initiatives Impacting Land Record Modernization Efforts.** In addition to the technological advances which are contributing to the trend toward computerization of land records, there are also several legislative initiatives which will likely impact these efforts. Most recently in 1996, the Nebraska Legislature passed LB 1190, the Information Technology Infrastructure Act, which noted that "the effective, efficient, and cost-effective operation of state government requires that information be considered and managed as a strategic resource." The Act also called for the establishment of enterprise-wide goals, guidelines, and priorities for information technology infrastructure.

Also in 1996, the Nebraska Legislature passed LB 299 and LB 1114, two bills which continue a recent trend of tightening budget

and revenue lido on local governments. These increasing restrictions of local government spending are likely to have multiple effects relative to land record modernization efforts. On one hand, they will make it more difficult to earmark limited local government resources for investment in land record modernization efforts. On the other hand, this tightening squeeze on the resources available to local governments may give added impetus to efforts to gain increased efficiency through modernization of land record management and to efforts to develop state/local partnerships to facilitate this transition.

The Nebraska Legislature also passed LB 693 in 1996, which created the Nebraska Commission on Local Government Innovation and Restructuring. This new Commission was charged with encouraging innovations in service delivery and government restructuring at the local government level. Because the management and use of land records are interwoven throughout local government, this is one promising area for innovation and restructuring.

A year earlier in 1995, the Legislature passed LB 490 which created a new three- person Tax Equalization and Review Commission and a new Property Tax Administrator position in the Nebraska Department of Revenue. Among the new Property Tax Administrator's duties is the responsibility for setting and monitoring compliance with standards for tax maps. Therefore, this new position could have a significant impact on land record modernization efforts.

A couple years earlier, as part of its FY '93-94 Appropriations Bill, LB 541 (Section 16, Agency #7), the Nebraska Legislature expressed its intent that the Nebraska GIS Steering Committee should:

- Prepare a comprehensive, coordinated survey regarding the future acquisition and use of Geographic Information Systems technology by state agencies.
- Develop an ongoing process by which the objective assessment of unmet state agency needs and demands for Geographic Information Systems technology will be undertaken.
- Develop a formal process to prioritize the identified unmet needs and demands for Geographic Information Systems technology.
- Develop a coordinated, phased process to develop recommendations for the funding of program initiatives and expansions.
- Develop recommendations for standards and guidelines for database creation to facilitate data sharing.
- Encourage the development of multi-jurisdictional consortia to share system development and operations expenses.

# NEBRASKA GIS STEERING COMMITTEE INITIATIVES

**Formation and Purpose.** The Nebraska GIS Steering Committee is an intergovernmental coordinating body established by the Nebraska Legislature in 1991 in an effort to coordinate the implementation of GIS technology by state and local government in Nebraska. Among its statutorily defined duties, the Nebraska GIS Steering Committee is charged with,

*"(2) Establish guidelines and policies for statewide Geographic Information System operations and management to include: (a) The acquisition, development, maintenance, quality assurance such as quality control standards, access, ownership, cost recovery, and priorities of data bases; . . ."* Section 81-2604.

## Findings Related to Land Record

**Modernization.** The Nebraska GIS Steering Committee has given considerable attention to the issues related to the land record modernization. In response to the Legislature's 1993-94 Appropriation Bill's intent

language, the Nebraska GIS Steering Committee conducted a survey of state, local, and regional government/public agencies to identify their needs and plans relative to GIS use and geospatial databases. Based on this survey, in its December 1993, Interim Planning Report to the Legislature and in its July 1994, Annual Report to the Legislature, the GIS Steering Committee noted the high degree of overlapping needs for certain types of spatially-referenced data by state and local governments. These reports highlighted *land ownership* as one of the databases for which

there was a considerable degree of overlapping need. Also in response to the Legislature's intent language, in its December 1994, Report to the Legislature, the GIS Steering Committee reported on its review of management and coordination models for GIS oversight. The GIS Steering Committee proposed that the most effective focus of these coordination efforts would be in area of facilitating data sharing (12/94 GIS Report, p. 7).

## Importance of State/Local Partnership.

In the same report, the GIS Steering Committee responded to the Legislature's request for an ongoing process by which the objective assessment of unmet state agency needs and demands for Geographic Information Systems technology will be undertaken. As part of its response, the Steering Committee stated its strong support for the importance of integrating local

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*¼ the Steering Committee stated its strong support for the importance of integrating local government spatial data development efforts with those of state agencies.*

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government spatial data development efforts with those of state agencies. To facilitate that integration, the Steering Committee

reported that it would "work with local governments and state agencies to develop and implement technical standards and guidelines for digital data development, identify impediments to land record modernization at the local government level, . . ." The Steering Committee also noted its support for the "concept of establishing a Land Record Modernization Fund as one way to encourage and facilitate the coordinated development, by local governments, of updated land-related digital data. Receipt of such funds would be contingent upon coordination at the local level

and cooperation with state standards, guidelines and data development priorities." (12/94 GIS Report, p 18-19)

**Digital Property Parcel Databases—A Development Priority.** The Nebraska GIS Steering Committee noted in its July 1995, Annual Report to the Legislature that it had

designated digital property parcel databases as one of seven statewide geospatial databases which were priorities for development. The Steering Committee also reported that in an effort to facilitate the development of statewide digital property parcel databases, it had convened a special intergovernmental ad hoc Property Parcel Task Force.

## PROPERTY PARCEL TASK FORCE

**Formation and Purpose of the Task Force.** The Property Parcel Task Force, authorized by the GIS Steering Committee, was charged with defining what information should be included in a digital property parcel database (and the related Public Land Survey System (PLSS) database) and with developing proposals for facilitating the creation, maintenance, and sharing the information included in such databases (7/95 GIS Report, p 4). The State Surveyor convened the Task Force in June of 1995.

In organizing the Task Force, a special effort was made to include representatives from the major interest groups involved with property parcel databases, as well as representation from across the state. Task Force members included representatives from the State Surveyor's office, County Assessors, County Register of Deeds, County Surveyors, County Commissioners, the Nebraska Association of County Officials (NACO), the Nebraska Department of Revenue, the Nebraska Natural Resources Commission, the Nebraska Department of Roads, and the Nebraska GIS Steering Committee.

Through a series of informal scoping meetings, this Property Parcel Task Force has laid out a number of issues, concerns, and proposals related to facilitating the development of digital property parcel databases and land record modernization in general.

**Definition of Terms.** Both the terms "property parcel base map" and "Public Land Survey System base map" are commonly used and encompass a wide range of meanings. Early in its deliberations, the Task Force adopted the following working definitions for these terms.

*A Property Parcel (Cadastral) Digital Base Map, and its related digital attribute database, shall include unique identification numbers for each property parcel and the coordinates (latitude/longitude) which define the boundaries of those property parcels, and be in a format that is compatible for use with a relational database management system.*

*A Public Lands Survey System Digital Base Map, and its related digital attribute database, shall include all the original government (PLSS) corners, all restored survey marks representing these corners, and all county boundaries within a given area of coverage. Each government corner and monumented survey mark will be referenced in the related attribute database by a unique identifier and the best available approximation of its coordinate (latitude/longitude) location.*

## **Conclusions — Property Parcel Task Force**

**Guidelines or Standards Needed.** To ensure that governmental units receive the most from their investment in digital mapping, it is important that reasonable guidelines are followed in the development of these mapping datasets. These guidelines should be based on a detailed consideration of the particular needs of the primary developer of the mapping dataset and also upon consideration of the needs of the likely range of applications and users for that dataset.

In the case of property parcel maps, reasonable applications might include not only uses by numerous local government entities, but also uses by regional bodies such as NRDs and school districts, as well as state and federal agencies. Applications of a dataset that involve geographic areas beyond the jurisdiction of a particular local government agency illustrate the importance of regional or statewide guidelines that facilitate the integration of mapping datasets from multiple agencies or jurisdictions.

Currently, neither state statutes nor state regulations provide detailed standards or guidelines to help local governments ensure that they will get the most from their investment in the development of digital property parcel mapping datasets. Guidelines also do not exist to ensure that once developed these digital datasets will be compatible with those developed by adjacent governmental jurisdictions.

The only apparent official state property parcel mapping standards that currently exists are from the Nebraska Department of Revenue's Real Property Regulations. These cadastral tax map standards have not been updated for some time and they were not originally developed with a goal of providing general standards or guidelines for multi-use, digital, property parcel mapping (*see Appendix, page 14*).

This potentially leaves 93 sets of County Commissioners, County Assessors, County Register of Deeds, and County Surveyors in a situation of needing to digest and agree upon technical specifications for digital mapping standards. These technical specifications should be decided upon prior to contracting for the development of these digital property parcel maps or prior to investing in the hardware, software, and personnel to develop them in-house.

The Property Parcel Task Force has highlighted several areas in which the cooperative development of additional guidelines or standards might facilitate the overall development and cooperative use of geospatial property parcel data.

- Coordinate system standards for use in Nebraska government geo-referenced databases

- Standard geo-referencing coding schema and referencing database for all of the original government corners of the Public Land Survey System (sections) in Nebr.
- Establishment of monumented county corner boundary reference marks and the accurate determination of their geospatial coordinates
- Spatial accuracy guidelines for a range of applications utilizing digital mapping
- Technical specification guidelines for the development of digital property parcel datasets and maps
- Technical guidelines for the development of the geospatial databases associated with a typical local government multipurpose cadastral geographic information system
- Guidelines for the use of property parcel numbering systems to facilitate the integration of property parcel datasets across jurisdictional boundaries
- Guidelines for a standard exchange set of database fields related to property parcel attributes and boundary coordinates to facilitate the integration of property parcel datasets across jurisdictional boundaries.

### **Local/State Partnerships Needed.**

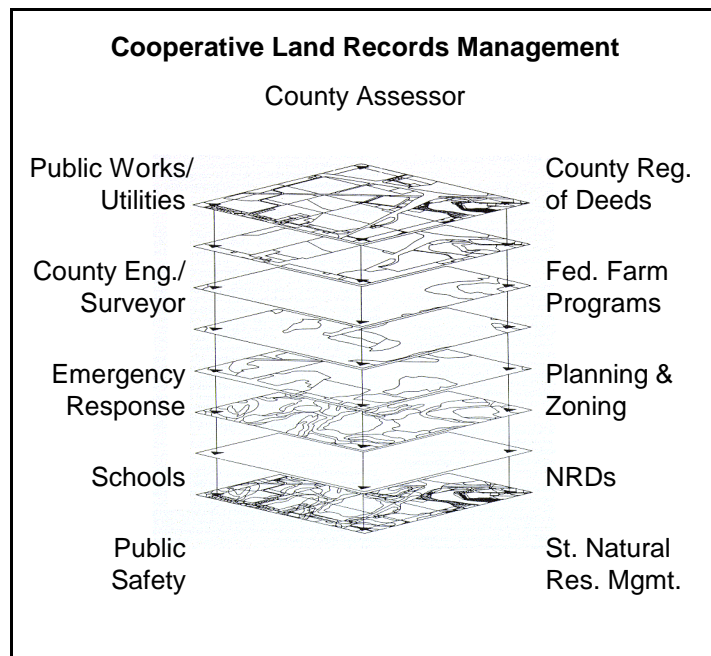
While agencies at the state and federal level have a growing interest in and need for property parcel data, the Property Parcel Task Force concluded that there are significant reasons why the bulk of the development and maintenance of these property parcel mapping datasets should either be performed by local governments or in very close coordination with those local governments. However, the Task Force also noted the potentially important roles of state government, and therefore, proposed the development of local/state partnerships to facilitate overall land record modernization.

**Local Responsibility.** Local governments are charged by statutes with the responsibility

for land record management, and consequently have developed significant local structures, procedures, and expertise around these responsibilities.

The dynamic nature of this information is another reason for centering the development and maintenance of this digital data

at the local government level. The shape and ownership of property parcels are constantly changing. For the most part, this information flows through local government offices. Therefore, it would generally be more efficient and effective for those local offices to be



involved in the ongoing updating and maintenance of this digital property parcel data.

***Greatest Accuracy Needed at Local Level.*** The relative need for accuracy, particularly spatial accuracy, is another reason to center efforts to develop digital property parcel data at the local government level. Several state and/or federal agencies do have need for this type of data.

However, as a general rule, local government applications have much higher requirements for spatial accuracy than do those of state or federal agencies. For many state or federal natural resources applications, being able to place a point within +/- 40 feet is probably adequate. However, for mapping the placement of a water main or lot line, one would probably want to be within 4 or 5 feet, or less.

It is quite feasible to generalize from a dataset with higher spatial accuracy to meet the needs of those with lower accuracy requirements. However, it is impossible to achieve increased spatial accuracy from a dataset originally based on lower spatial accuracy standards. This is a compelling argument for basing the development of digital property parcel datasets within local governments, who generally have the highest spatial accuracy requirements for their applications.

***Statewide Guidelines.*** There are strong sensible arguments for basing the development of digital property parcel mapping within local governments. However, there are equally compelling arguments for the need of state government to be actively involved in helping to facilitate this land

record modernization process. As noted above, there is a need for guidelines to help local governments achieve the maximum return on their investment in land record modernization and to ensure that digital property parcel datasets are compatible across local jurisdictional boundaries. A state/local government partnership is probably the best vehicle for the development and promotion of such guidelines.

***Statewide Geo-referencing Databases.*** State and/or federal agency participation is also needed to develop and maintain statewide geo-referencing databases which can be used as the basis to tie the various digital map segments and layers together. Examples of such databases might include a Public Land Survey System database which provides standardized identification numbers for all of the PLSS section and quarter-section corners in the state, a central registry of all monumented survey marks to provide reference points for local surveys and mapping, and statewide digital aerial photography.

***Facilitation of Cost Sharing.*** A state/local government partnership is also needed to develop and manage mechanisms for sharing the cost of this up-front investment in land record modernization. Without some mechanism for sharing the cost of this initial investment, local governments will be saddled with a financial burden for which they are not currently well prepared. As a consequence, the process of modernizing these land records will be considerably slowed for all concerned.

There are at least two complementary approaches to facilitating this cost-sharing. One approach is an active state/local partnership designed to facilitate specific

project-by-project cooperative agreements between government entities for the development and maintenance of specific digital land record databases. For example, such an agreement might be developed among a local government, an NRD, and the local agencies of the U.S. Department of Agriculture.

A complementary approach would be to establish a special state fund dedicated to land record modernization efforts and managed by a state/local coordinating body. Such an effort could be a vehicle to provide seed funds to help local governments move forward with land record modernization efforts. It could also be a means to provide additional incentives for developers of digital parcel property datasets to cooperate with any established guidelines, and therefore make it more likely that datasets would be compatible across jurisdictional lines.

The Property Parcel Task Force has recommended that an effort be made to bring together the various interest groups involved in the use and development of digital property parcel datasets to explore the support for an executive/legislative initiative to establish such a land record modernization fund.

**Broad Participation is Important.** The Property Parcel Task Force has noted the importance of broad participation in any process to develop mechanisms for local/state partnerships or guidelines to facilitate land record modernization. On one hand, there is a broad base of potential interest in utilizing these digital property parcel maps and associated records once they have been developed. On the other hand, there is little in the way of clear authority for

the development or adoption of guidelines to ensure that these datasets can be integrated across local jurisdictional boundaries.

Likewise, once guidelines have been developed, there currently exists little in the way of either authority or incentives to promote the utilization of the guidelines by the individual dataset developers. Therefore, it is important that a broad range of potential data developers participate in and have ownership in the results of any process to develop guidelines for digital property parcel mapping.

Broad participation is also important to ensure that the needs of the broadest possible user community are considered in the development of the guidelines. This assurance (through participation) that multiple agency or organizational needs are being considered will build the base for future cooperation and support on specific project-by-project efforts. It will also help to build a necessary base of support for more general political initiatives designed to facilitate cost sharing and land record modernization efforts overall.

**Affected Parties.** The identification of potential stakeholders in the development of digital property parcel guidelines is a key step in ensuring the broadest possible participation in that process. The next step is determining practical ways in which these stakeholders can be meaningfully involved in such a process.

Potential stakeholders might include:

- individuals or groups potentially involved in developing digital property parcel mapping;
- potential users of these maps or the current paper maps which they will replace;

- groups with a stake in the current system of developing and maintaining these maps; and
- groups with the potential to facilitate or hinder the adoption of any changes in the processes of developing, maintaining, or using this digital mapping.

Based on these criteria, the following groups could reasonably be considered to represent some of the stakeholders in any effort to adopt guidelines for the development of digital property parcel mapping or an effort to develop local/state partnerships to facilitate land record modernization.

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Property Owners	Public Power Districts of Nebr.	Nebr. Game and Parks Comm.
County Commissioners	Nebr. Legislature	Nebr. Dept. of Environ. Quality
County Assessors	Nebr. Governor's Office	Nebr. Dept. of Water Resources
County Register of Deeds	Nebr. GIS Steering Committee	Professional Surveyors - Nebr.
County Surveyors	Nebr. Intergov. Data Com. Adv. Coun.	Title Insurance Industry - Nebr.
County Clerks	Nebr. Dept. of Revenue	Consulting Engineers - Nebr.
County Election Commissioners	Tax Equalization and Review Comm.	Realtors - Nebr.
Law Enforcement	Nebr. State Surveyor's Office	Bankers - Nebr.
Natural Resources Districts	Nebr. Dept. of Roads	USDA-Nat'l Res. Conserv. Serv.
School Districts	Nebr. Natural Resources Commission	USDA-Farm Services Agency
Nebr. Municipalities	Conservation & Survey Division-UNL	Federal Geographic Data Cmte.

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The next challenge will be to develop meaningful practical ways that these interest groups might be involved, if they choose, in any process to develop guidelines for developing digital property parcel mapping and/or local/state partnerships to facilitate land record modernization.

Many of these interest groups, other than the state or federal agencies, have related associations designed, at least in part, to influence legislation and/or regulations. Where they exist, these associations offer a potential vehicle for involving their membership in such processes.

## OPTIONS FOR FACILITATING LAND RECORDS MODERNIZATION

The Property Parcel Task Force has highlighted a number of areas in which there exists significant potential for cooperative actions to facilitate the process of land record modernization. The Task Force has also noted the broad range of interest groups who would potentially be involved with or impacted by efforts to develop digital property parcel maps and datasets. The Task Force has also noted the importance of seeking broad participation

in any effort to develop guidelines or institutions to facilitate overall land record modernization.

Because of the large number of interest groups that potentially have a stake in defining various aspects of a land modernization effort, an effective decision-making process will need to incorporate deliberate methods to solicit feedback from these groups as the process

moves forward. However, for practical efficiency, small working groups made up of core constituencies and needed expertise must be relied upon to do the research and drafting of detailed proposals. The make-up of these small working groups will vary relative to the specific objectives being pursued.

In light of these considerations, the following draft process is proposed for moving discussions and deliberations related to facilitating land record modernization forward.

- A. Circulation of this Working Paper to representatives of the various interest groups outlined above, solicitation of their initial reaction to ideas and suggestions outlined in the working paper, their interest in the participating in particular initiatives, and their suggestions for future methods of contact and communication with their constituency.
- B. Property Parcel Task Force modification of draft Working Paper based on the initial feedback from interest groups.
- C. Convening of a general meeting of all of the interested parties to discuss the concepts and suggestions outlined in the revised Working Paper, determine interest in and support for further development efforts, prioritize any such efforts, determine ultimate decision-making models, and solicit involvement in specific working groups.
- D. Organization of prioritized working group(s) to draft detailed proposals for further consideration.
- E. Circulation of draft detailed proposals for feedback along with the possibly of convening a second follow-up meeting of the larger body of interested parties for discussion of the draft proposals.
- F. Modification of the draft detailed proposals based on feedback and adoption by most appropriate body/bodies.

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## APPENDIX

### Excerpts from Title 316, Chapter 40, Real Property Regulations, Nebraska Department of Revenue 2-550-85 Rev. 1-93

#### REG-40-004 RECORD KEEPING

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##### ***Cadastral Maps***

004.02 Every county shall prepare and maintain yearly a cadastral map system. It shall consist of a series of sheets and books showing each parcel of land accurately to scale. As many of the following items as are pertinent shall be shown on each sheet:

##### 004.02A General

- (1) Title of map
  - A. Township
  - B. Section or sections
  - C. Addition or subdivision
  - D. Block
  - E. Parcel or lot
- (2) Book and page number as found in the register of deed's office
- (3) City
- (4) Arrow indicating north
- (5) Scale of map
- (6) Page number of bordering maps on respective edges

##### 004.02B Descriptive information

- (1) Section numbers, and township numbers, if more than one
- (2) Additions or subdivisions if they cover only a portion of the map and are not in the title
- (3) Property ownership lines with essential courses and distances-shown by solid lines
- (4) Dimensions of lots and tracts-showing original plotted areas in dotted lines if parcel includes a greater area
- (5) Lot number-shown in the center of the lot
- (6) Parcel number-which shall be circled or otherwise highlighted on the parcel
- (7) Original block number
- (8) Assessor's block number, which shall be enclosed elliptically or otherwise highlighted
- (9) Acreage of any parcel of one acre or more, or fractions thereof, or if the county has implemented a lot and block system of identification, then the lot and block
- (10) Width of streets and roads

##### 004.02C Street names

##### 004.02D Highway route numbers designating whether federal, state, or local

##### 004.02E Ownership and use of public property (courthouse, library, school, park, etc.)

##### 004.02F Creeks, rivers, ditches, bridges, lakes, etc.

004.02G In the preparation of a cadastral map, the following scale of measurement shall be used as applicable:

Urban lot	Scale - 1 inch	= 100 ft.
Large urban & suburban	Scale - 1 inch	= 200 ft.
General rural	Scale - 1 inch	= 1,320 ft.
General rural & range	Scale - 8 inches	= 1 mile

A cadastral map shall be printed on materials of a permanent nature that will facilitate reproduction. Each sheet or page of a cadastral map shall be uniform in size. The county assessor shall update and maintain the cadastral map to reflect any changes in the information contained therein. Any deviation in the standard set by this regulation shall be approved in writing by the Tax Commissioner. The requirements mandated in this regulation shall not prohibit a county from using electronic records.

### ***Parcel Numbering System***

004.03 Every county shall prepare and maintain a parcel numbering system. For this purpose, a parcel is a contiguous area of land in one ownership and one general use and containing not more than one section (640 acres). A section in one ownership containing more than 640 acres by reason of the United States Government Survey may be considered a parcel. The number of parcels on separate pages should be consistent.

For those counties contemplating processing equipment for a complete or partial application, a more detailed system of parcel numbering is required which has its foundation in the cadastral mapping program. A parcel numbering system shall include the identification of the county, the taxing district, and a detailed property coding system. Before the program is installed, the input/output information in the parcel numbering system shall be approved in writing by the Tax Commissioner.

004.04 When a half section, quarter section, or half quarter section belongs to one owner, it shall be listed as one description. If all the lots in a block belong to one owner, they shall be listed as one description. When any tract or parcel of real estate is situated in more than one taxing district, the portion in each such district shall be listed separately.

004.05 The county assessor shall enter in the proper column, opposite each respective tract or lot, the name of the owner, so far as can be ascertained. The lists, ledger or computer files shall contain columns in which may be shown the number of acres or lots and their value.

(Sections 77-369, 77-1329, 77-1331, and 77-1336, R.R.S. 1943, and 77-1303, R.S.Supp., 1992. January 24, 1993.)